

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



02 DEC 2004

(43) International Publication Date
9 October 2003 (09.10.2003)

PCT

(10) International Publication Number
WO 2003/083037 A3

(51) International Patent Classification⁷: C12N 13/00

(21) International Application Number:
PCT/US2003/009031

(22) International Filing Date: 25 March 2003 (25.03.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/367,876 25 March 2002 (25.03.2002) US

(63) Related by continuation (CON) or continuation-in-part
(CIP) to earlier application:
US 60/367,876 (CIP)
Filed on 25 March 2002 (25.03.2002)

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(81) Designated States (national): AR, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KR, KG, KP, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Rarasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SK, SI, SK, TR), OAPI patent (BF, BJ, CH, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NR, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(88) Date of publication of the international search report:
26 February 2004

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: MINIMIZING METAL TOXICITY DURING ELECTROPORATION ENHANCED DELIVERY OF POLYNU-
CLEOTIDES

(57) Abstract: Methods are provided for introducing a polynucleotide into healthy tissue and generating a pulsed electric field in the tissue via invasive electrodes, resulting in enhanced delivery of the polynucleotide into cells of the tissue, while minimizing local side effects to the electroporated tissue and systemic side effects to the electroporated organism due to metal contaminants released from said electrodes. In one embodiment, the invention methods use electrodes of gold, gold alloys or other metal that minimize the introduction of toxic amounts of the metal into electroporated tissue. In other embodiments, the invention methods are utilized for the gene therapy by administering DNA to cells of suitable target tissue, and for the induction of an immune response by administration of a DNA vaccine.

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